REMARKS

Reconsideration and reexamination of this application are respectfully requested.

Applicant courteously acknowledges receipt by the Office of the Deposit Declaration filed August 9, 2007.

Applicant respectfully disagrees with the Examiner's statement that "Applicant has not relied on the benefit of foreign priority." (Office Action at ¶ 3.) As indicated in the documents attached hereto and incorporated herein, Applicant claimed priority "based on Canadian Application Nos. 2,345,206, filed May 16, 2001 and 2,346,968, filed May 23, 2001." (*See* attached Cover Letter dated November 14, 2003, at p. 2). The PCT attached to the cover letter contained the same information. (*See* PCT WO 02/092628 cover page, attached for convenience.) Furthermore, the PTO received this information, as indicated by the return postcard, which is also attached. Accordingly, Applicant has relied on the benefit of foreign priority, thereby setting May, 16, 2001, as the earliest priority date for this application.

Claims 4, 5, 8-11, and 42 are pending.

Claims 2-3, 6-7, and 41 are canceled.

Claims 1, 12-40, 43, and 44 are withdrawn.

Claims 4 and 5 are amended. Support for these amendments appears in the following representative passages of the application: claim 4 - Spec. at [0012], and claim 5 - Spec. at [0012].

Claims 45 and 46 are new. Support for these claims appears in the following representative passages of the application: claim 45 - claim 4, and claim 46 - claim 5.

Rejection Under 35 U.S.C. § 102(b)

The Examiner rejected Claims 4, 5, 8, 9, and 42 under 35 U.S.C. § 102(b) as being anticipated by Gardner *et al.*, 282 *Science* 1126 (1998). (Office Action at ¶ 9.) The Examiner argues that the specification defines the "peptide sequence" of the claimed invention as at least 5 amino acids in length. (Office Action at 5.) The Examiner interprets Applicant's claims as reading on a peptide sequence of as few as 5 amino acids. (*Id.*) The Examiner continues by noting that the cited reference discloses peptides of at least 5 amino acids in length that are identical to Applicant's claimed invention. (*See id.* at 5-6.) Accordingly, the Examiner concluded that the cited reference would thereby anticipate the claimed invention as defined by the specification. (*Id.*)

Without agreeing with the Examiner's claim construction, Applicant has amended the disputed claims. Claim 4 is amended to remove "peptide sequence" and recite "[a]n isolated polypeptide consisting of SEQ ID NO: 3 (DG747)." Claim 5 is amended to remove "peptide sequence" and recite "polypeptide having 95% identity with the sequence as claimed in claim 4." The remaining claims depend from claims 4 and 5, thereby importing these limitations by reference. Gardner fails to disclose these limitations of the claimed invention either directly or inherently. Given that Gardner fails this test, it cannot anticipate claims 4, 5, 8, 9, and 42 under 35 U.S.C. § 102(b). Thus, the claims are allowable.

Rejection Under 35 U.S.C. § 103

The Examiner rejected claims 10 and 11 under 35 U.S.C. § 103(a) as obvious in light of Gardner *et al.* combined with Druilhe *et al.*, (U.S. Patent No. 6,191,270). In particular, the Examiner contends that Gardner *et al.* "teaches the claimed invention except for the recitation of the support." (Office Action at ¶ 10.) The Examiner further argues that Druilhe *et al.* "teaches use of isolated and purified polypeptides from *P. falciparum*" and "that the antigens or peptides according to the invention may be coupled to traditional supports or adsorbed on such supports." (*Id.*) Applicant respectfully traverses.

"Obviousness is a question of law based on underlying factual inquiries," which include: the scope and content of the prior art; the differences between the claimed invention and the prior art; and a determination of the level of ordinary skill in the pertinent art. MPEP § 2141, 8th ed., 6th rev. (Sept. 2007). The Office bears the initial burden of factually supporting a *prima facie* conclusion of obviousness. MPEP § 2142. The analysis supporting a rejection under 35 U.S.C. § 103(a) should be made explicit by clearly articulating the reason why the claimed invention would have been obvious. *Id.* The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.* (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)); *see also KSR Int'l Co. v. Teleflex Inc.*, 82 U.S.P.Q. 2d 1385, 1396 (2007) (quoting Federal Circuit statement with approval). In addition, when conducting an obviousness analysis,"[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from

the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)." M.P.E.P. § 214.03.

Applicant respectfully submits that the cited prior art fails to disclose all of the limitations of the claimed invention. Moreover, the Examiner does not account for these differences or indicate how the cited reference combination overcomes them. The claimed invention recites a specific amino acid sequence; polypeptides containing at least 40 consecutive amino acids identical to that sequence; or a polypeptide having 95% identity with that sequence.

Gardner *et al.*, meanwhile, discloses only a predicted protein sequence, and as noted by the Examiner, one possessing less than 92% identity with the claimed invention. (Office Action at 4.) Notably, the sequence (PFB0155c) is one of 209 appearing in the reference and only as a small notation in a single Figure. *See* Gardner *et al.* at Fig. 1. Absent from the reference is an indication that any of the predicted sequences actually encodes a polypeptide, whether such a polypeptide would fold correctly if expressed, or whether such a polypeptide would induce an immune response. Further, the reference actually shows that the authors recognized they were only making conjectures. *See* Gardner, *et al.* at 1126-1127 (stating that "[o]f the 209 protein-encoding genes, 43% contain at least one intron," and "[t]his percentage is an estimate, because some introns may have been missed by the gene finding method"). In view of such deficiencies, the reference discloses insufficient information for a person of ordinary skill to reasonably succeed in practicing the claimed invention.

Combining Gardner *et al.* with Druilhe *et al.* fails to address any of the aforementioned problems. As noted by the Office, Druilhe *et al.* teaches the use of isolated and purified polypeptides from *P. falciparum.* However, it does not teach whether the PFB0155c sequence of Gardner *et al.* encodes any polypeptide, let alone an immunogenic polypeptide, or even the polypeptides of the claimed invention.

Considering the information listed above, the Office has not presented a *prima facie* case that claims 10 and 11 are obvious under 35 U.S.C. § 103(a) in view of Gardner *et al.* combined with Druilhe *et al.* Thus, these claims are allowable.

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Attachments: Transmittal Letter
Cover page for WO 02/092628
Postcard received from the PTO